

**REMARKS**

Claims 1-14 are all the claims pending in the application. Claim 1 has been amended to require that each channel of the group is predetermined based on its wavelength. This claim amendment is well supported in the originally-filed application; no new matter has been added.

The Examiner rejected claim 6 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6 is amended to clarify that the claim depends from claim 5. Applicant respectfully requests the Examiner to withdraw the objection to claim 6 in view of the above self-explanatory amendment made thereto.

The examiner objected to Figs. 4-6 because there are no descriptive legends for the boxes. The Examiner's attention is respectfully drawn to see the substitute drawing sheet enclosed in the Appendix. As recommended by the Examiner, legend "REGEN" has been added to boxes with label "16" in Figs. 4-6, and the specification has been appropriately amended so as to be in accord with the newly added descriptive legends.

The Examiner objected to Fig. 1 and asked Applicant to add a "prior art" label. Applicant respectfully requests the Examiner to reconsider this request. The figure applies to both prior art and the inventive approach. (*see* column 6, line 17-18). To avoid the confusion to the reader, the brief description of the Fig. 1 in the specification has been amended to clarify the fact that Fig. 1 illustrates both conventional approach and various partial embodiments of the

inventive approach. Applicant therefore has not made this requested change to the Fig. 1 and respectfully requests the Examiner to accept Fig. 1 in its present form.

The prior art rejections.

The Examiner rejected claims 1, 3, 8, and 11-12 under 35 U.S.C. § 102(e) as being anticipated by Uehara (USP 6256125 B1). Applicant respectfully traverses this rejection, first with respect to independent claim 1, as now amended, which requires:

wherein each one of the set of channel regenerators regenerates only a predetermined respective group of channels, each respective group forming only a subset of said set of channels, and each channel of the group is predetermined based on channel wavelength.

For linguistic convenience only, Applicant will refer to the foregoing requirement as the “predetermination by wavelength” requirement.

The applicant respectfully submits that Uehara does not meet the above-mentioned requirement. In requiring the identity of channels to be regenerated at each node to be predetermined by wavelength in claim 1, the current invention has the advantage of regenerating fixed channels at each node, which allows great simplification of the entire system by the fact that the regenerator and the synchronization means (if present) at each node have a simple structure.

Uehara does not meet the predetermination by wavelength requirement. In Uehara, whether a channel is regenerated or not depends on bit rates of the optical signal. (*see* column 5, line 64 - column 6, line 1; and column 6, line 2--24). Uehara contains no teaching or suggestion of predetermining the channels in each group by channel wavelengths. In Uehara, the channels

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regenerated at each node would have different wavelengths at different time. As a result, Uehara does not have the same advantage of having a simple structure for the regenerator and synchronizer (if present) at each node, as in the present invention.

Since Uehara does not meet the predetermination by wavelength requirement of claim 1, Uehara cannot be said to anticipate the claim within the meaning of 35 U.S.C. § 102. After carefully studying Uehara, Applicant finds no teaching or suggestion that would have enabled the artisan of ordinary skill to achieve the predetermination by wavelength requirement without significantly changing the Uehara system.

In view of the predetermination by wavelength requirement of claim 1 and the foregoing remarks, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 1, and also of its dependent claims 3, 8, and 11-12.

As to the rejection of the dependent claims 2, 4-7, 9, 10, 13 and 14, Applicant respectfully submits that the prior art rejections are all based on Uehara. None of the combinations of Uehara with the other applied references render unpatentable the subject matter of independent claim 1, let alone its dependent claims. In particular, the combined teachings of these references, alone or in any combination with Uehara, taken as a whole for what they would have meant to the artisan of ordinary skill, would not have enabled such a person to have achieved a system that meets that predetermination by wavelength requirement of claim 1.

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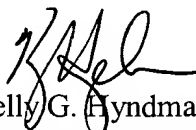
Applicant therefore respectfully requests the Examiner to withdraw the rejections of claims 2, 4-7, 9, 10, 13 and 14 under 35 U.S.C. § 103, in view of the requirements of claim 1 and the foregoing remarks.

Conclusion and request for telephone interview.

Applicant respectfully requests the Examiner to find the application now to be in condition for allowance with claims 1-14. If the Examiner feels that the disposition of the application could be expedited by speaking with Applicant's representative, the Examiner is respectfully invited to call the undersigned attorney at the number shown below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Kelly G. Hyndman  
Registration No. 39,234

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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